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EXAMINER	
PHU, SANH D	

ART UNIT	PAPER NUMBER
2682	

DATE MAILED: 02/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/803,029	KAARIO, JUHA	
	Examiner	Art Unit	
	Sanh D Phu	2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-3,7-10,12-14,17-20 and 22-27 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-3,7-10,12-14,17-20 and 22-27 is/are rejected.

7)☒ Claim(s) 4-6,11,15,16 and 21 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 23-24 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Taenzer et al (6,603,860).

As per claim 23, see figure 1A and col. 3, line 53 to col. 4, line 18, Taenzer et al discloses an apparatus (see figure 1A) comprising:

a wearing garment including the clothing worn by a user and a conductive fiber (20), namely essential substance (20) laying over at the user's shoulder, forming an induction loop; and

an activator unit (18) arranged to establish electrical conduction, via the induction loop, and to serve as an interface between the garment and a portable electronic device (24).

As per claim 24, Taenzer et al discloses that the garment and said portable electronic device are in electrical interface utilizing a wireless connection (see figure 1A).

As per claim 27, see figure 1A and col. 3, line 53 to col. 4, line 18, Taenzer et al discloses an apparatus (see figures 1A and 1B) comprising:

an inductive coil formed by a conductive fiber (20) for coupling a hearing device to a wearing garment which includes the clothing worn by a user and the conductive fiber (20) forming an induction loop;

a speaker (10) for conveying a message from a portable electronic device (24) to a hearing device (12) of a user; and

an activator unit (18) for establishing a connection between the portable electronic device and the induction loop.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taenzer et al.

As per claims 25 and 26, Taenzer et al does not disclose whether the electrically conductive fiber (20) includes a metallic material including either

one of copper, gold, steel, iron, etc. However, these materials are well-known in use for generating magnetic fields, and the examiner takes Office Notice. Therefore, for an application, it would have been obvious for a person skilled in the art, when carrying out Taenzer et al invention, to select metallic material as either one of these materials being on the basis of the suitability for intended use for the conductive fiber (20) in generating the magnetic field (26).

3. Claims 1-3, 7-10, 12-14, 17-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taenzer et al in view of Peterson (2002/0084990).

As per claims 1 and 13, see figure 1A and col. 3, line 53 to col. 4, line 18, Taenzer et al discloses a process and an associated apparatus, (see figure 1A) comprising:

a garment worn by a user (16);

electrical fibers (20) in a predetermined pattern to form an induction loop; and

an activator unit (18) arranged at a predetermined location on the induction loop to establish electrical connection and activate the induction loop, and to provide an interface to a portable electronic device (24).

Taenzer et al does not disclose that the electrical fibers (20) is integrated into the garment. He discloses that the electrical fibers (20) are worn over on the garment (see figure 1A).

Peterson teaches that an electrical device worn by a user can be integrated into a garment worn by the user for avoidance of disadvantages such as being awkward, getting in the way of the user, etc, (see section [0025]).

It would have been obvious that a person skilled in the art, when carrying out Taenzer et al invention, could apply Peterson teaching by implementing the electrical fibers (20) to be integrated into a garment worn by a user (16), for avoidance of disadvantages such as being awkward, getting in the way of the user, etc.

As per claim 2, Taenzer et al discloses that the garment corresponds to a shirt (see figure 1A).

As per claim 3, Taenzer et al in view of Peterson discloses that the electrically conductive fibers can be sewed into the garment (see Peterson, section [0025]). In Taenzer et al invention, in view of Peterson, the electrically conductive fibers inherently must be formed as an induction loop for generating the magnetic field (26) (see Taenzer et al, figure 1A).

Claims 7 and 17 are rejected with similar reasons set forth above for claims 25 and 26.

As per claims 8 and 18, Taenzer et al discloses that the activator unit comprises a power source (inherently included to provide power for the activator unit), a microphone (see col. 3, lines 60-62), electronic processors (FM receiver, amplifier, etc) (see col. 3, lines 60-62), and an interface which provide appropriate connection to close the induction loop and to the portable electronic device, via a wireless transmission (see figure 1A, and col. 3, line 65 to col. 4, line 7).

As per claims 9 and 19, Taenzer et al disclose that the activator unit includes a connection device or fasten device from the activator unit to the

induction loop to make a closed inductive loop when in operation (see figure 1A).

As per claims 10 and 20, as applied to claim 1, Taenzer et al in view of Peterson does not disclose that the garment includes a pocket. However, Peterson discloses that a garment worn by a user can implemented with pockets for carrying out electronic devices worn by the user (see figures 4 and 5 and section [0027] in order to achieve a convenience. It would have been obvious for a person skilled in the art to implement Taenzer et al invention in view of Peterson, as taught by Peterson, in such a way that the garment worn by the user (see Taenzer et al, figure 1A) comprises a pocket for carrying electronic parts, such as connectors for use in the activator unit, if the uses wants to carry them along.

As per claims 12 and 22, Taenzer et al discloses that the portable device includes a radio device "FM transmitter" (see Taenzer et al, col. 3, line 66).

Claim 14 is rejected with similar reasons set forth above for claims 2 and 3.

Allowable Subject Matter

4. Claims 4-6, 11, 15, 16 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding to claim 4, none of prior art of record teaches or suggests that the electrically conductive fibers corresponding to conductive yarns which are metallic coated yarns, yarns that incorporate non-conductive fibers with metallic fibers, or yarns that are showered with metallic pieces, as recited in the claim.

Regarding to claims 5, 6, 15 and 16, none of prior art of record teaches or suggests that the electrically conductive fibers each comprises a central metallic core composed of an electrically conductive material, and an insulative overcoat composed of an insulative material, as recited in claim 5 and 15.

Regarding to claims 11 and 21, none of prior art of record teaches or suggests that the activator includes a zipper with conductive teeth for data/electric connection utilized to establish electrical connection between the

conductive fibers forming the induction loop and to provide an interface to at least one portable electronic device, as recited in the claims.

Conclusion

5. References Grever (6,208,740) and Lehr et al (5,793,875) are additionally cited because they are pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanh D Phu whose telephone number is (703) 305-8635. The examiner can normally be reached on 8:00-16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 703-301-6739. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-8635.

Sanh D. Phu
Examiner

Art Unit 2682

SP

LEE NGUYEN
PRIMARY EXAMINER